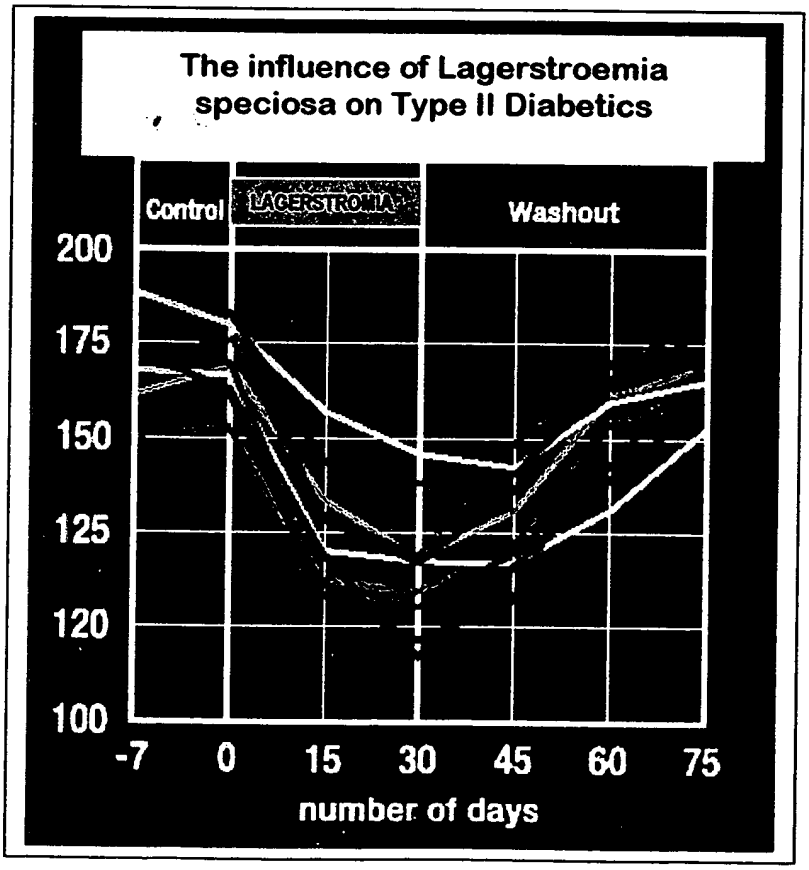
immunodeficiency virus protein (HIV) and Map30 have anti viral and anti-tumor activity in vitro. Inhibiting HIV and herpes simplex viruses', including acyclovir-resistant strains and it appears to inhibit HIV by inhibiting reverse transcriptase. MAP30 is also an N-glucosidase, which inhibits HIV ribosomal protein synthesis and might make viral and plasmid DNA into the genetic material of healthy cells. Lagerstroemia speciosa leaf (c) In 1998, a crossover, placebo-controlled clinical study was conducted at the Tokyo Jikeikai Medical School in Japan with 24 Type II diabetic human subjects. After four weeks, corosolic acid (The active ingredient in Lagerstroemia speciosa) was shown to effectively reduce blood glucose levels vs. placebo, with no adverse effects. Furthermore, even a one-time dose left a "memory-effect" for blood glucose control, lasting several days. In another study conducted at the Southwestern Institute of Biomedical Research, in Bradenton, Florida, 12 human subjects with mild Type II diabetes were studied for 22 weeks. Several forms of corosolic acid were administered to different groups, and in several dosages. It was seen that the higher the dose of corosolic acid, the greater the drop in blood glucose levels. The greatest blood glucose reduction was obtained using an oil-based soft gelatin capsule formulation of corosolic acid at a 48 mg daily dose.

In an elaborate cross-over study, 12 subjects took a placebo for two weeks, then a daily dose of 48 mg corosolic acid (two oil-based softgels of 8 mg after each meal), for 30 days. This was followed by a 45-day placebo washout period. Then the same group took 48 mg corosolic acid in a different form (two hard gelatin capsules of 8 mg corosolic acid dry powder after each meal), for 30 days. Another 45-day washout followed. The results show that corosolic acid is effective in reducing blood glucose levels, with no adverse effects.

Specifically, the average blood glucose level in the control group was 168.3 mg/deciliter.

The soft gelatin formulation of corosolic acid caused a rapid drop to an average value 115.1 mg/deciliter at the 30th day of corosolic acid (Lagerstroemia speciosa) treatment. During the washout period, the blood glucose level only slowly came back up, suggesting a memory effect of corosolic acid for up to four weeks after the termination of intake. In addition, 48 mg of corosolic acid per day continued to reduce blood glucose levels until the end of the 30-day period.

Additional benefits were seen, with corosolic acid restoring a normo-glycemic profile after meals. The corosolic acid group had a normal sharp decline in blood glucose levels after eating, compared to the slow decline after a meal often seen in diabetics. The diabetic symptoms of frequent thirst and urination also disappeared for those using the corosolic acid, and there was an increased ability to lose weight. This U.S. clinical study confirms the 1998 Japanese clinical study showing that corosolic acid (from Lagerstroemia



Lagerstroemia speciosa) safely and effectively lowers blood glucose levels in Type II diabetics.

Multiple effect mineral ingredients in the invention contribute to formula enhancement at all three levels of activity, comprising Chromium, Magnesium and Vanadium.

Chromium polynicotinate (d) Chromium plays a role in the metabolism of glucose, and is necessary for energy production. Since this mineral assists in the production of insulin, it helps to stabilize blood sugar levels and can be beneficial both for people with hypoglycemia and diabetes. It is also critical to the synthesis of cholesterol, fats, and proteins. Chromium polynicotinate (d) is more effective than any other type of chromium, as it binds the elemental chromium to niacin (vitamin B-3) [1, d]. This provides a biologically active form of chromium, which is more absorbable in the body. Vanadium (Vanadyl sulfate) (e) is derived from the trace element vanadium. In recent studies, Vanadyl sulfate (e) has been shown to enhance many of the same anabolic processes controlled by insulin. Along with testosterone, growth hormone and thyroid hormone, insulin is a major anabolic hormone. Insulin mimicking effects by Vanadyl sulfate (e) causes glucose and amino acids to be forced into muscle to a greater degree than normal. Vanadyl sulfate (e) also helps increase glycogen storage in muscle and helps improve protein synthesis. This is the perfect anabolic environment to stimulate the metabolism of stored fat (yellow fat). Magnesium (Magnesium aspartate) (f) is the second most plentiful cation in the intracellular fluid and the most plentiful cation in the body. Up to 50% of the magnesium in the body is present in bone. Magnesium is important to the normal bone structure and it plays an essential role in more than 300 fundamental cellular reactions. Magnesium is required for the formation of cyclic AMP (cAMP) and is involved in ion movements across cell membranes. It is involved in protein synthesis and **carbohydrate metabolism**. Extracellular magnesium is critical to both maintaining nerve and muscle electrical potentials and transmitting impulses across neuromuscular junctions. Aging and stress are thought to

increase magnesium requirements. Low intake and impaired absorption of magnesium (f) have also been associated with the development of various disease states such as osteoporosis, hypertension, atherosclerotic vascular disease, cardiomyopathy, diabetes, and stroke. Symptoms of severe magnesium deficiency include convulsions, confusion, muscle weakness, abnormal muscle movements, and others. Magnesium (f) stimulates gastric motility due to the release of gastrin and Cholecystokinin (CCK) further contributing to satiety. There is evidence that magnesium is important in regulating blood pressure. Magnesium (f) deficiency has been found to cause intracellular concentrations of sodium and potassium to increase, which can lead to increased peripheral resistance and vasospasm. In cell membranes, a decreased concentration of magnesium (f) and increased calcium to magnesium ratio has also been associated with hypertension. There is also evidence that hypertensive patients with hypomagnesemia usually require more antihypertensive medications than hypertensive patients with normal magnesium levels. There is some evidence that serum magnesium (f) deficiency might play a role in both ischemic and hemorrhagic stroke. Preliminary information shows magnesium may act as a neuroprotective agent in patients diagnosed with acute stroke. Several possible mechanisms of neuroprotection exist, including noncompetitive N-methyl-D-aspartate antagonism and calcium channel antagonism. In patients with congestive heart failure, there is evidence magnesium reduces coronary vascular resistance, increases coronary artery blood flow, has antiarrhythmic effects, and improves cardiac indexes. There is evidence that low magnesium levels play a role in diabetes and migraine headaches. Magnesium blood levels play a role in insulin resistance. There is also evidence that low dietary intake of magnesium (f) increases the risk of developing type 2 diabetes. Effects of magnesium on serum lipids may be due to decreased lipolysis and increased lipoprotein lipase activity. Intracellular levels of magnesium, measured in erythrocytes and leukocytes, have been found to be lower in women with premenstrual syndrome (PMS), leading to the use of magnesium supplements for PMS. Magnesium (f) is reported to be an antagonist at N-methyl-D-aspartate (NMDA) receptors, which are involved in the potentiation of pain. This effect and magnesium's depressant effects on nerves and smooth muscle are thought to contribute to the possible effects of magnesium (f) in relieving symptoms associated with migraines, postoperative pain,

neuropathic pain, erythromelalgia, Raynaud's Phenomenon, and other vascular disorders and pain syndromes. There is some evidence that magnesium metabolism is a factor in renal stone formation and prevention.

4. What is claimed in the invention is, a unique dosage schedule: the invention may be taken before or after meals to enhance and prolong satiety. Adult dosage three tablets twice daily.
5. What is claimed in the invention is; the invention may be taken (orally) after the ingestion of calorie rich food (High Carbohydrate) as an antidote to interfere with calorie intake in the interest of weight management.
6. What is claimed in the invention is the influence of high carbohydrate on transport and conversion of tryptophane to serotonin promoting satiety (Claim 5).

ADVANTAGES OF THE PRESENT INVENTION

Accordingly, an advantage of the present invention "Dietary Supplement For Suppressing Appetite, Enhancing and Extending Satiety, Improving Glycemic Control and Stimulant Free" is that it provides a nutrition intervention composition for enhancing satiety after a meal.

Another advantage of the present invention is that it prolongs satiety for four hours after a meal.

Another advantage of the present invention is that it introduces an additional quantity of tryptophane in the form of 5-Hydroxytryptophane to support bound and free tryptophane to be metabolized into the neurotransmitter, serotonin initiating the satiety response.

Another advantage of the present invention is that it introduces an ingredient complex for lowering elevated blood glucose levels, increasing insulin in response to high carbohydrate ingestion and providing an excess of insulin to counteract Energy Homeostatic Weight Gain Bias.

Another advantage of the present invention is that it introduces a system for chemically binding lipids and bile acids, inhibiting lipogenesis and decreasing gastrointestinal transit time.

Another advantage of the present invention is that it introduces several ingredients to lower blood cholesterol.

Another advantage of the present invention is that it makes available the neurotransmitter serotonin that is metabolized to melatonin, a sleep related hormone found in the pineal gland, and results in reduced sleep latency and an improvement in the overall quality of sleep through improved sleep architecture (Boman 1988).

Another advantage of the present invention is that it makes available the neurotransmitter serotonin, which also serves well where depleted serotonin levels exist such as anxiety disorders, depression, obsessive-compulsive disorders, pain disorders and aggression.

****